Emotional Aftermath of the Persian Gulf War

Veterans, Families, Communities, and Nations

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Nearly all wars result in prisoners. Prisoners of war (POWs) usually experience the most extreme traumas of war. In addition, they often have complicated reentrys into their home country. The greater their trauma, the more likely that psychiatric illness will result (Ursano et al. 1987; Wheatley and Ursano 1982). The Persian Gulf War was no different from other wars in this regard. The study of coping during captivity, as well as of psychological health and pathology following repatriation, has implications for psychiatric planning for future wars and for the treatment of other stressor-related psychiatric illnesses. In this chapter we present the initial evaluations of the Persian Gulf War POWs and briefly review the literature on the psychiatric effects of the POW experience. The prison experience and the experience of repatriation and reintegration into the family are discussed.

Psychiatric Assessment of the Persian Gulf War Prisoners of War

The Persian Gulf War resulted in 21 American POWs: five Army, eight Air Force, three Navy, and five Marine Corps. Nearly all were fliers; two were women. Before the repatriation, extensive consultation occurred to consider the plans for the POWs' recovery, medical evaluation, reunion with families, and return home. As in all POW returns, the pressure to return the POWs home rapidly was great. Medical data, however, support a more gradual reintroduction and "depressurization" process, including medical assessment, provision of information on the changes in the family and the world while the POW was in captivity, and then reunion in a protected environment with limited media intrusion.

Both captivity and reunion with the family were recognized as stressful for the POW. The POWs of Operation Desert Storm were taken for their initial evaluation and reentry to the hospital ship USNS *Mercy*. There they received initial medical and psychiatric assessment and informal debriefings. They were then flown to Andrews Air Force Base in Washington, D.C., where they were reunited with their families and taken to one of the three military medical centers in the Washington area (Walter Reed Army Medical Center [WRAMC], National Naval Medical Center, and Malcolm Grow USAF Medical Center) for further medical evaluation. Usually they stayed there for several days before their first "overnight" outside the hospital. Orientations were held for the families, and time was arranged for the POWs to get reaquainted with their families while in the hospital, where mental health support staff were available.

The Persian Gulf War POWs had been held captive for 7 to 48 days (median = 37 days; mean = 33). Weight loss ranged from 0 to 30 pounds (median = 20 pounds; mean = 17 pounds). Roughly half of the POWs sustained significant injuries either when they were shot down or as part of the torture and maltreatment that they received. Of the 21 POWs, two received a psychiatric diagnosis on repatriation. One was diagnosed with PTSD

and one with adjustment disorder with mixed emotional features. Because there was concern about overdiagnosis and the effects of labeling, it was important also to examine prominent psychiatric symptoms and interpersonal problems noted during the evaluation. In addition to the POWs who received the psychiatric diagnoses, two others were diagnosed as having a life circumstance problem, two were noted to have an exaggerated startle reaction without other features of PTSD, and one was noted to be socially aloof, although it could not be determined to what extent this was new or a characteristic aspect of the individual's personality style. (On reevaluation 6 months later, both the startle reaction and the social isolation had greatly diminished.) Thus, in this group, approximately 10% had a psychiatric diagnosis; when all psychiatric "issues" or symptoms are considered, this percentage increases to approximately 33%. These numbers are similar to those reported in Vietnam War–era U.S. Air Force POW fliers immediately after their repatriation (Ursano 1985; Ursano et al. 1981).

Case Example 1

This male flier was shot down in sight of his wingman and hoped that his squadron mates had seen him eject. He received a broken arm on ejection. He was very concerned about being shot coming down in his parachute and felt somewhat relieved when he landed on the ground. He evaded capture for several hours but eventually was located by a passing group of soldiers. He was placed in tight cuffs and his arms tied behind his back. At the first interrogation site he was repeatedly beaten about the head and had his broken arm probed by a stick as the captors asked about the plans for the next air attack. After several days, he finally reached a more permanent cell. Here he could often hear and see Allied bombings. He was terrified that his prison would be hit by a bomb and he would be entombed. During captivity he felt "edgy" and would pace his cell hundreds of times per day. It was extremely cold at night, and food was limited. He was interrogated several times while

> in prison. He was at times taken outside for a mock execution and believed his captors planned to eventually kill him. He reported fantasies of being at home and of his favorite fast food restaurant. When other POWs were placed in nearby cells, he felt some relief. When the war was over and his captors came to take him to the Red Cross exchange, he thought they were planning to execute him. Only when he saw the Red Cross uniforms did he believe that he was really going home.

The capture of two military women highlighted one of the major concerns about sending women into battle: what would happen to female POWs? Major Rhonda Cornum, a flight surgeon who was captured after her helicopter was shot down, has related her experiences in the war (Cornum 1992). The horror of helplessness in the face of a comrade's torture is eloquently described in the following passage:

> Then the guards came for Troy [a fellow POW] and marched him into another room down the hall. After a few moments, I heard Iraqi voices yelling in English from the room, shouting questions about what we were doing in Iraq. I imagined Troy in the room surrounded by Iraqi soldiers, but he said nothing. Then came the sound of a loud slap as someone hit him across the face. They asked another question, and when Troy didn't answer, they slapped him hard. Again and again, shouted questions; silence as Troy refused to speak; and loud, stinging slaps. Shouting. Silence. Whap, the sound of a hand across Troy's face. I felt terrible, helpless, I remembered being molested on the truck, and how Troy had felt so frustrated because he couldn't protect me. Now I was the one who was unable to protect him. I had been helpless from the moment we were captured because of my injuries, but it was far worse for me to feel helpless for someone else, for someone I cared about. (Cornum 1992, p. 113)

As a mother and wife, Major Cornum's story also addresses the impact of these roles on her and her family.

In the remainder of this chapter we explore the immediate and long-term consequences of captivity. Special attention is given to the American experience following other wars of this century. Areas of special importance in understanding the Gulf War POW experiences are highlighted.

Captivity

There is no one POW experience. For example, the average duration of POW imprisonment during the Vietnam War was substantially longer than during World War II and the Korean War. Many POWs were held captive in Vietnam for 6 to 7 years. In contrast, the captivity of the Persian Gulf War POWs lasted days (range 7–48 days). The severity of captivity conditions also varies in each war. The World War II Pacific theater POW camps were much worse than the European theater prisons (Beebe 1975; Dent et al. 1989). During the Vietnam War, the POW experience was much more severe before 1969 than after that date. That year was a turning point of the war and the beginning of the Vietnamese recognition that POWs could be politically important. In the Gulf War some of the POWs experienced torture and many feared death from bombings by the Allies themselves.

It is important to remember that repatriated POWs are always a subset of those who were lost, captured, and imprisoned. They are the survivors. We know nothing about those that never return.

The types of stressors experienced by POWs depend on the cultural and socioeconomic status of the captors, the geography and climate of the country, endemic diseases, the circumstances of capture (aircrew ejection, large-group surrender, etc.), the political climate, and the degree of resistance offered by the POW (Ursano and Rundell 1990). The degree of stress caused by these experiences depends on the physical conditions, degree of maltreatment, interpersonal issues during captivity, and the individual's appraisal of events (Biderman 1967). The role

of culture itself as a stressor is frequently overlooked (Biderman 1967). Exposure to a country with limited resources, different rules of interpersonal and group relations, and different day-to-day personal and work habits can be stressful, regardless of any intent to deprive or demean a captured soldier. For the Persian Gulf POW, the Iraqi culture included vastly different attitudes toward women and toward anyone who was thought to be Israeli or Jewish.

Ursano and his group (1987) reviewed debriefing reports and medical questionnaires completed by repatriated Vietnam War POWs immediately after release in order to describe and quantify the stress factors of the Vietnam War–era POW experience. One section of the medical questionnaire included questions on the methods used by the North Vietnamese to control the prisoner's behavior. Each question was answered on a four-point scale that ranged from "never" to "very often." Debriefing reports were coded for frequency and type of maltreatments. With a factor-analytic technique, seven stress factors were identified: 1) psychological maltreatment, 2) physical torture and maltreatment, 3) solitary confinement, 4) interrogation, 5) threats and denials of privileges, 6) high-resister status (i.e., resisted interrogation/interaction extremely), and 7) duration of maltreatment.

A neurasthenic appearance in POWs after prolonged captivity was described by Greenson in World War II POWs and by Strassman in Korean War POWs (Greenson 1949; Strassman et al. 1956; see also Eitinger 1961). Both noted an apathy syndrome that was felt to be adaptive in the POW environment. Withdrawal and detachment increased the chances of survival. Energy was conserved, and the POW was less likely to stand out and challenge the captors, eliciting threats and torture.

Ursano and colleagues (1986) found, based on Minnesota Multiphasic Personality Inventory (MMPI) measures, that withdrawal and detachment were related to successful coping only in the high but submaximum stress Vietnam War POW group (i.e., those captured after 1969). In the maximum stress group, withdrawal and apathy were also present but were not predic-

tive of successful coping. In this maximum stress POW group, denial, repression, and suspiciousness were associated with better coping. This finding suggests that cognitive coping strategies may be important in maximum stress settings after withdrawal from the environment has been attempted. With the passage of time, withdrawal and neurasthenia may be less helpful and other strategies such as fantasizing and pondering family concerns more useful (Deaton 1975).

At the time of capture, POWs must gain quick emotional control, deal with fears of death, and attend to the tasks necessary for survival. Expectations of rescue fade quickly after removal from the capture site; usually the prisoner is bound and/or blindfolded. A sense of disbelief may result from the rapid sequence of events and the radical change in roles from combatant to captive. The POW is forced to adapt to less—a state of chronic deprivation and anxious expectation. Feelings of longing for freedom, wishes for sympathy, dissociation, and fantasizing about home or retaliation are common. Hypervigilance, alertness, and orientation to details such as the jingle of keys or voices outside one's cell are adaptive mechanisms to decrease surprise and increase anticipation and preparation for the unexpected. Exploitative interrogations, confessions, isolation, boredom, demoralization about the uncertainty of the situation, and the need to make decisions regarding resistance and compliance are parts of the day-to-day experience. All of these were reported by the POWs of Operation Desert Storm. The hypervigilant state can be replaced by apathy, dysphoria, and withdrawal if captivity continues long enough. Although such a condition was commonly reported in Vietnam War, Korean War, and World War II POWs, the short duration of the Persian Gulf War made this level of withdrawal less characteristic. When imprisoned for long periods, POWs often engage in self-developed physical fitness programs, group communication, resistance, humor, creativity through projects and fantasies (e.g., learning a language, collaboration, fantasizing about the future, planning escape or sabotage), and helping other POWs.

Adaptation to and Coping With Captivity

The POW experience is often terrifying and inhuman, and it is always filled with the unexpected (Chodoff 1976; Richlin 1977) (Table 17–1). Biological stressors can be extreme and vary with both the geographic location and the demeanor of the captors. Physiological stress and emotional duress were both significantly higher in POWs held captive in the Pacific theater during World War II than in POWs held in the European theater. Maltreatment is directly related to the extent to which an enemy country sees the POW as politically valuable. In Vietnam, after 1969, conditions improved and torture and maltreatment of the POWs decreased. This change corresponded to the period during which it became clear to North Vietnam that the POWs could be an important political tool.

Survival during the POW experience is most related to the degree of injury at the time of capture and the availability of food, shelter, and medical care. For example, 4% of Canadian POWs in World War II died in European prison camps and 27% in the much worse Pacific prisons (Weisaeth 1989). Ursano and colleagues

Table 17–1. Captivity stressors

Physical	Psychological
Crowding	Boredom
Diarrhea	Close, long-term interpersonal contact
Epidemic diseases	Confinement
Exhaustion	Danger
Forced labor	Family separation
Infectious organisms	Fear/terror
Injuries	Guilt
Medical experimentation	Humiliation
Nutritional deprivation	Isolation
Sleeplessness	Threats
Torture	Unpredictability
Weather extremes	
Wounds	

(1986) found no relationship between resistance stance, "marginal coping" during captivity, or feeling benefited from the POW experience after return, and postrepatriation psychopathology.

Coping with the POW experience includes the use of cognitive mechanisms and interpersonal/social, behavioral, and fantasy coping strategies (Table 17–2). One author's experience with many of the 12,000 surviving World War II Pacific theater POWs of the Japanese led him to conclude that there were numerous attributes that allowed these 12,000 men to survive (18,000 did not survive) (Nardini 1952). These attributes included strong motivation for life, good general intelligence, good constitution, emotional insensitivity or well-controlled and well-balanced sensitivity, preserved sense of humor, strong sense of obligation to others, controlled fantasy life, courage, successful resistance, opportunism, military experience, and luck.

The POW's personality also affects adaptation and coping. In the crew of the USS *Pueblo*, captured and held by North Korea in 1968, immaturity, passive-dependency, and obsessive-compulsiveness were associated with poor adjustment (Spaulding and Ford 1972). Ford and Spaulding (1973) examined crew members of the *Pueblo* just after their release. Men who did well during captivity often had personalities described as "healthy" or "schizoid." They used a wide variety of ego defenses, particularly faith, reality testing, denial, rationalization, and humor. Men who handled the stress poorly were frequently diagnosed as being passive-dependent and were more limited in the number of ego defenses they used.

Schizoid behavior and introversion have been reported to be more adaptive than obsessive-compulsive, passive-dependent, or immature behaviors (Ford and Spaulding 1973; Spaulding and Ford 1972). Passive-dependency has been singled out as a particularly maladaptive response (Ford and Spaulding 1973; Spaulding and Ford 1972). Induction of dependency is advantageous to camp leaders in imposing their will (Bettelheim 1958). The psychological state of the POW during captivity has been described as "dependency, debility, and dread," termed "DDD" (Farber and Harlow 1957). Identification of adaptive personality

characteristics requires further study. Personality resiliency and the ability to tolerate passivity do appear to be positively related to optimal adaptation (Singer 1981; Ursano 1979, 1985).

Jones (1980) reviewed six books written by former POWs who had been held in North Vietnamese prison camps. He iden-

Table 17–2. Coping strategies of prisoners of war

	Interpersonal/Social
	Collaboration
	Well-controlled sensitivity with captors
	Resistance
	Withdrawal
	Studying guards' habits and using the knowledge to gain favor
	Maintaining military structure
	Buddy system
	Chain of command
	Code of conduct
	Group activities
	Group affiliation
	Military experience
	Peer pressure
	Fantasy
	Dissociation
	Fantasies of retaliation
	Fatalism
	Hope
	Idealized expectations of postrelease life
	"Talking to family"
Behavioral	
Physical fitness	
Rituals	
Self-development activities	
Repetitive behaviors	
Communication	

tified coping strategies that sustained the POWs during imprisonment. Each man had a personal and strongly held standard of behavior. Ideals that were commonly reported as sustaining were 1) loyalty to country (e.g., remembering their heritage, focusing on their patriotic duty to resist), 2) idealization of their family (e.g., hoping to return with a feeling of having been worthy of them), and 3) alliance with fellow prisoners (e.g., communications, mutual support, cooperative resistance).

Maintaining military bearing is also reported to be an important adaptive behavior (Coker 1974). During the Vietnam War, identification with military ideals unified POWs in spirit and in their determination. The chain of command formalized and solidified the prisoner society in the camps. The Military Code of Conduct, which was modified after the Vietnam War, reportedly provided important guidelines for the POWs.

Probably the single most important adaptive behavior in all POW situations is communication. During the Vietnam War, a tap code was developed using a 5×5 arrangement of the alphabet (the letter *k* was omitted). The row and column of a letter could then be communicated. Ingenious mechanisms were used to spread messages. Coughing, sweeping, and tapping were all important means of using the code.

Additionally, the ability to express one's rage in hidden forms—the now historic picture of the *Pueblo* crew demonstrating a common American gesture of contempt—often provides a release from pent-up rage and hostility. There is a fine line, however, between appropriate resistance and provocative resistance (e.g., resistance that unnecessarily increases torture and maltreatment). Such POWs with poor coping skills who resist provocatively feel they could never comply, even to trivial requests. These POWs risk bringing torture on themselves and their comrades.

Coping with solitary confinement is often necessary and was so for the Persian Gulf War POWs. Singer (1979) reviewed journalistic accounts written by former Vietnam War–era POWs who had spent a great deal of time in solitary confinement. Several mental phenomena were prominent: 1) a propensity to review

one's life with remorse and guilt, 2) recall of the past in vivid detail, 3) recall of unused academic or intellectual training, 4) extraordinarily vivid dreams with prolonged recall upon awakening, 5) intense, vivid, long-enduring fantasies (sometimes lasting days), and 6) a splitting of attention and awareness.

The firmer a POW's resistance stance, the more time he or she may spend in isolation as captors try to limit the "spread" of resistance behavior. In Vietnam, the longer the POW's duration of isolation, the greater was the POW's risk of psychiatric illness (Hunter et al. 1976). Cause-and-effect relationships, however, are unclear. Resistant, higher-ranking, and older POWs spend more time in solitary confinement and are tortured more often because of their leadership and resistance activities. However, it may also be true that individuals whose personality allows them to survive prolonged solitary confinement are more likely to maintain persistent resistance.

It is difficult to separate out the unique contributions of any one stressor to the development of psychopathology in POWs. High social isolation correlates with greater captivity stress in general. Ursano and colleagues (1987) and Hunter (1978) both reported greater rates of psychopathology among those POWs who spent the greatest time in solitary confinement. Hunter examined 100 former Vietnam War POWs and concluded that no definitive statement could be made as to any specific psychiatric disorders resulting from social isolation. However, she did find that former POWs from Vietnam who had experienced prolonged periods of isolation had significantly more guilt, ambivalence, suggestibility, superego development, and need for achievement than other former POWs (Hunter 1975, 1976, 1987).

Resistance and Collaboration

Resistance is a coping strategy that at times is required because of military necessity. For most POWs, especially pilots, militarily important information is only of concern during the first few hours or days of captivity. During this time most POWs are concerned that they not disclose information that will hurt their

fellow soldiers and fliers. After this time, issues of resistance are more related to captor demands for subservience, compliance, or political statements. In Vietnam War and Korean War POWs, high resistance was seen more often among older POWs who had been held captive longer; this group also experienced more solitary confinement and harsher treatment (Hunter et al. 1976; Segal 1956).

In the Persian Gulf War, prisoners who were thought to be Jewish were especially harshly treated. In future regional and ethnic wars, the contribution of ethnic hatred to maltreatment of POWs may be particularly high.

The Persian Gulf War was also the first time that United States female servicemembers were held prisoner. In the prison camp, being female does not protect one from, and may attract, maltreatment and degradation.

Ursano and colleagues (1986) identified high resisters in the pre-1969 (highest maltreatment) group of Vietnam U.S. Air Force POWs. The high resisters were older, were more senior in rank, were pilots, and had spent more days as a prisoner. The authors found that, based on MMPI data, the high resisters showed greater energy, were more outgoing and extroverted, and showed less repression, constraint, and denial. In addition, the high resisters were more likely to experience conflict with authority and to be more independent and less socially conforming. In general, therefore, the high resister tended to be independent, energetic, less likely to bind his energy through cognitive mechanisms, and less attached to the group. These findings are in agreement with those from the Korean War (Schein et al. 1957; Singer and Schein 1958).

The high resister may at times provoke mistreatment. For example, in Vietnam, POWs who resisted the Oriental custom of bowing were severely punished. In general, these individuals had difficulty adjusting to the need to be passive and compliant. Their rigidity sometimes made life more dangerous for their fellow prisoners as well. This was not a major issue during the Persian Gulf War because the number of POWs held together was limited and the duration of captivity was relatively short.

Schein (1956) examined 759 POWs shortly after repatriation from Korean prison camps. He compared men who 1) collaborated, 2) actively resisted, and 3) took a neutral course (i.e., were neither collaborators nor extreme resisters). (A discussion of what constitutes collaboration and of other related issues is presented below.) Both resisters and collaborators had significantly longer internments, had been in service longer, were older, and were more intelligent. Additionally, they showed more psychopathic deviance (Pd scale of the MMPI). Resisters and collaborators, however, did not differ significantly from one another. No differences among the groups were found in rank, civilian occupation, religion, location of home community, or number of parents present in the home.

Singer and Schein (1958), using projective psychological testing, studied collaboration and resistance after the Korean conflict. They reported the counterintuitive finding that resisters and collaborators were more alike than different in most personality dimensions. Both showed less capacity to remain uninvolved with the environment. The authors suggested that what distinguished resisters and collaborators was not individual personality variables but rather which group they chose to attach to.

Collaboration (and resistance) comprises a continuum of behaviors and is not an all-or-none phenomenon. POWs collaborate in varying degrees. Most commit trivial acts such as signing peace petitions. A small number may engage in more persistent behaviors such as writing, signing, and soliciting signatures for peace petitions, delivering anti-American lectures to fellow prisoners, or aiding in indoctrination programs (Schein et al. 1957). Those POWs who collaborate with the enemy do so in part to eliminate the threat of mistreatment and to receive the benefits of preferential treatment.

The concept of collaboration has limited utility except in extreme cases. Importantly, collaboration is in many ways "in the eyes of the beholder." During the Persian Gulf War, the media, supported by U.S. government announcements, rapidly clarified that POWs might say things that their captors had forced

them to say and that these statements should not be taken as an indicator of a bad soldier but rather of the bad enemy. This management of the meaning of captivity was very helpful for the returning POWs and also for undermining the usefulness of torture-induced statements, thus aiding in protecting the POWs during captivity.

In Vietnam, all POWs were "broken." For most, this was a profoundly guilt-inducing experience. As a result of the recognition of every individual's breaking point, new strategies to resist interrogation were based on repetitive fallback positions and on giving minor, nonsignificant information when resistance was no longer possible. Part of the importance of the communication network and of the military organization in the POW camp was their ability to provide relief from guilt through knowledge that others had broken. The communication fostered the development of specific guidelines for the POW on how and when to resist.

Medical and Psychiatric Illness After Captivity

The first follow-ups of World War II POWs, by Cohen and Cooper (1954), found significantly greater mortality in Pacific theater POWs primarily from accidents and tuberculosis. No excess mortality was seen in the European group. Gastrointestinal disorders, psychological problems, ophthalmic changes, cardiac disorders, and the effects of malnutrition and tuberculosis were also noted. Similar increased mortality rates were reported in Australian Pacific theater POWs (Dent et al. 1989). A follow-up study by Nefzger (1959) of World War II and Korean War POWs showed that the early excess mortality was at that time decreasing in the Pacific theater group. However, Korean conflict POWs continued to show excess mortality.

In all of the follow-up studies of World War II POWs, the psychiatric signs and symptoms remained among the most persistent postliberation findings for both the Pacific theater and

European theater groups. Psychiatric responses to the POW experience include a number of disorders as well as less well defined personality changes (Rundell et al. 1989; Ursano 1981), as discussed below.

Posttraumatic Stress Disorder

The diagnosis of posttraumatic stress disorder (PTSD) and accompanying intrusive and avoidant symptoms is well documented in former POWs from several theaters of war up to 50 years after release (Atkinson et al. 1984; Kluznik et al. 1986; Laufer et al. 1985; Page 1992). In one study, 67% to 85% of surviving former World War II POWs were found to have met the criteria for PTSD at some time since repatriation (Kluznik et al. 1986). The sample, however, may have been biased because the subjects were solicited by mail and, therefore, their psychiatric status may not be representative of former POWs who did not respond to the mailing or former World War II POWs at large. However, the results suggested that PTSD was common in this group of POWs. White (1983) found that 85% of a group of POWs from Japanese camps had suffered at least moderately severe PTSD. Japanese POW camp survivors have consistently been reported to have PTSD symptoms more frequently than other POW groups, and the symptoms have been more severe (Page 1992; Speed et al. 1989). Speed and colleagues (1989) found that the strongest predictors of PTSD were the proportion of body weight lost and the degree of torture. In perhaps the best-designed follow-up, Page (1992) found that high rates of PTSD persisted 50 years postrepatriation, particularly in Pacific theater POWs, when compared with a control group.

The MMPI has been used both clinically and for research on former POWs. In a 1986 study comparing World War II POWs of the Pacific theater with those of the European theater, the highest scale elevations were found in Pacific theater POWs on scales hysteria (Hs), depression (D), hypochondriasis (Hy), psychasthenia (Pt), and schizophrenia (Sc) (Wheatley 1981). Both groups had scale scores that were clearly distinguishable from

those of a well-chosen non-POW control group. There have been attempts to develop an MMPI subscale for PTSD, one that could be applied to POWs. This scale has been used for Vietnam War and World War II veterans. In one study it showed no difference in rates of PTSD among Japanese versus European POW veterans, although PTSD was diagnosed clinically more often in POWs from the Pacific theater (Query et al. 1986).

Adjustment Disorder

In a study of repatriated U.S. Air Force Vietnam War POWs, Ursano and colleagues (1981) found that adjustment disorders and marital/occupational problems occurred in 17.2% to 18.2% of the sample at repatriation and in 9.2% to 15.8% at 5-year follow-up. These were the most common psychiatric diagnoses. Hall and Malone (1976) closely followed six former POWs and their families for 3 years following their return from North Vietnam and found the greatest cognitive, social, work, emotional, and family difficulties during the first 2 years after return. These problems, in general, eventually resolved, and no major psychiatric illness occurred in any of these men.

Depression

Paykel's review of the literature in 1978 revealed that the presence of traumatic events increases subsequent lifetime risk for depression twofold and for suicide sixfold. Some studies suggest that the prevalence of depression may decline after the first few years following a traumatic event (Green et al. 1983). The prevalence of major depression in Pacific theater POWs remained higher than in a non-POW control group even 40 years after their release (Breslau and Davis 1986; Page et al. 1991). Studies of MMPI results in repatriated POWs reveal elevated depression scales (Klonoff et al. 1976a). Page and colleagues (1991), using a large national sample of World War II POWs (European and Pacific theaters), Korean War–era POWs, and non-POW comparison groups, found elevated depressive

symptomatology on the Center for Epidemiologic Studies–Depression Scale five decades after repatriation. POWs who were younger, who were less well educated, or who had received harsher treatment were more likely to report depression (Page 1992).

Psychoactive Substance Use Disorders

Alcohol abuse appears to be more common in former POWs than in demographically related groups (Beebe 1975; Cohen and Cooper 1954). Studies that control for demographic, socioeconomic, and precaptivity psychiatric history, however, are few. There are morbidity data and other evidence to suggest that alcohol abuse is problematic in many former POWs and should be carefully considered during medical and psychiatric examinations. Kluznik and colleagues (1986) reported that 40 years after World War II, a postwar diagnosis of alcoholism was present in 50 of 188 POWs from the Pacific theater who volunteered for medical and psychiatric examination. Of that group, 67% also had a history of PTSD; therefore, the alcoholism may have been primary or secondary. Alcohol use can be a form of self-medication (Birkheimer et al. 1985; Helzer et al. 1976) and may suppress nightmares, diminish autonomic hyperactivity, and foster more pleasant, nontraumatic fantasies (van der Kolk 1983). Alcohol excess frequently accompanies PTSD (in 41%–80% of cases) (Breslau and Davis 1986; Sierles et al. 1983).

Anxiety Disorders

Before DSM-III (American Psychiatric Association 1980) and the diagnostic category of PTSD, the most frequent diagnoses given to psychiatrically ill former POWs were anxiety reaction, anxiety state, and anxiety neurosis (Beebe 1975). Anxiety disorders other than PTSD remain frequent in former World War II POWs (Engdahl et al. 1991; Kluznik et al. 1986). In one study, 143 of the 188 former POWs in the sample met the criteria for an anxiety disorder other than PTSD (Engdahl et al. 1991). Generalized

anxiety disorder was most frequently reported (103 of 188) in this group; there was a large degree of overlap with PTSD. In some studies, up to 95% of patients with PTSD met the criteria for at least one other DSM-III-R (American Psychiatric Association 1987) anxiety disorder (Query et al. 1986). Panic attacks and panic disorder have been reported in some studies to be frequent in persons exposed to trauma; however, the frequent occurrence of these attacks and this disorder in this population has not been universally found (Horowitz et al. 1980).

Personality Change

Personality changes resulting from the POW experience need not be pathological. Sledge and colleagues (1980) identified a distinct group of Vietnam POWs who felt they had benefited from their experience. In fact, those individuals who experienced the greatest stress during captivity were most likely to believe they gained psychologically from the experience. These POWs often report that their POW experience led to their redirecting their goals and priorities and moving toward psychological health (Ursano 1981; Van Putten and Yager 1984; Yager et al. 1984). Personality shifts may also be a part of the findings of particular MMPI profiles related to particular POW stressors (Sutker et al. 1991). Nonpathological personality change appears to be dependent on the nature and severity of the experience as well as the preexisting personality. As mentioned before, in World War II and Korean War POWs, a profound apathy syndrome was noticed (Greenson 1949; Strassman et al. 1956). In contrast, Vietnam War–era POWs studied by Ursano (1981) showed movement toward character rigidity, decreased interpersonal relatedness, heightened drive to achieve, and the experience of time pressure. Such changes are neither pathological nor beneficial in and of themselves. Sutker and colleagues (Sutker and Allain 1991; Sutker et al. 1990, 1991), in their study of Korean War POWs, found suspiciousness, apprehension, confusion, isolation, detachment, and hostility. Eberly and associates (1991) found persistent elevated negative affect in World

War II POWs 40 years postcaptivity, which the authors interpreted as an adaptational change to accommodate the captivity.

Ursano (1981) has discussed possible reasons for the different personality shifts in the POW context based on intrapsychic and adaptational shifts. Two types of change—apathy and rigidity/high energy (drive)/interpersonal distance—serve adaptive functions in a similar way. Which type of change develops may depend on the circumstances of imprisonment, such as the amount of physical torture, chronicity (Vietnam War–era POWs experienced longer imprisonments than did Korean POWs), level of deprivation, opportunity for active and passive expressions of aggression, and the types of threats experienced by the POW. These variables are in turn dependent upon the type of war, the socioeconomic conditions of the enemy, the political climate, and the culture of the captors.

From the intrapsychic perspective, conflict within the ego and within the superego can be seen as the result of heightened aggressive drives bound up during the captivity situation. Such drives are then discharged through the demanding punitive elements of the superego and/or the ambitious, hard-driving pursuit of goals and ideals embodied in the ego-ideal. The apathy syndrome seen in Korean War POWs may be partially explained as the result of the punitive superego's victory in this intrasuperego conflict. In contrast, heightened aggressive drives can also be discharged in the service of the ego-ideal. In this case, determination, character rigidity, and interpersonal distance may be the result.

Predictors of Psychiatric Distress

Severity of Captivity

The severity of captivity is a result of both the duration of imprisonment and the degree of maltreatment and deprivation. The length of captivity alone is not a good measure of captivity severity. Pacific theater World War II POWs were exposed to sig-

nificantly greater physical, environmental, and psychological stress than were European theater POWs. Only 40% of 30,000 POWs held by the Japanese survived the war (Nardini 1952). Disease and malnutrition were common (Beebe 1975; Nefzger 1959). Mortality, largely because of tuberculosis, was also higher just after repatriation in the Pacific theater group (Nefzger 1959). Accidents and liver cirrhosis remained significantly more common for many years. Beebe (1975) found a higher number of medical and psychiatric symptoms, greater disability, and more maladjustments in Pacific theater POWs than in European theater POWs. The former group continues to have higher hospital admission and illness rates. Higher rates of liver cirrhosis suggest a higher frequency of several hepatic diseases and alcoholism in the Pacific theater group (Klonoff et al. 1976b; Nefzger 1959). Page (1992) found continued high rates of psychiatric and medical morbidity in the Pacific theater group into the 1980s.

In Vietnam, POWs captured before 1969 had both longer captivity and substantially more deprivation, torture, and maltreatment than those captured in 1969 or after (Hunter 1978; Ursano et al. 1987). Ursano, Wheatley, and colleagues (Ursano et al. 1981; Wheatley and Ursano 1982) demonstrated a greater degree of psychiatric readjustment problems in repatriated U.S. Air Force POWs captured before 1969 than in those captured after 1969. Pre-1969 captives had a higher frequency of psychiatric diagnoses and abnormal MMPI scales. The overall MMPI profiles of the pre-1969 captives also deviated farther from the norm than did those of the post-1969 captives on the initial MMPI. The pre-1969 captives showed increased repression, a higher level of denial, greater suspicion, and more distrust. The post-1969 captives' second MMPI profile 5 years later was lower and looked more like the norm profiles established for air crew members; in contrast, the profiles of the pre-1969 captives had remained essentially unchanged.

Similar findings were reported by Benson and colleagues (J. W. Benson, D. L. Bizzell, P. F. O'Connel, unpublished manuscript, Naval Aerospace Medical Institute, 1979) in U.S. Navy and Army Vietnam War–era POWs. The authors divided POWs

into four groups: 1) officers captured before 1969, 2) enlisted personnel captured before 1969, 3) officers captured after 1969, and 4) enlisted personnel captured after 1969. These groups were examined for differences in immediate and delayed posttraumatic psychopathology. The enlisted personnel exhibited significantly more postrepatriation psychopathology than did the commissioned personnel. Significant improvement was noted between the first- and the fifth-year follow-up only in officers captured after 1969. These results indicate that after controlling for officer-enlisted status, greater captivity stress, as measured by the duration and intensity of captivity, was associated with more negative psychiatric outcome in both groups and greater persistence of problems in the enlisted group. In another study, it was found that Vietnam War–era POWs who had been exposed to more prolonged isolation had higher rates of psychiatric disorder than did those who experienced more limited solitary confinement (van der Kolk 1984). This finding further indicates the importance of the severity of the captivity experience as a major predictor of psychiatric disturbance.

Several studies by Ursano have addressed the question of trauma as a cause of psychiatric illness. Ursano (1979, 1981) examined six repatriated Vietnam War POWs who had, coincidentally, been evaluated psychiatrically before their captivity. Using the precaptivity psychiatric data, he found that preexisting pathology or identifiable predispositions to psychiatric illness were neither necessary nor sufficient for the development of psychiatric illness after repatriation. Further data on the question of predisposition are provided by studies of captured Vietnam War–era U.S. Air Force fliers (Ursano 1981). Fliers are selected for their health and are screened for psychiatric illness before they are considered for flight school. Pre-1969 captives were demographically comparable to post-1969 captives and, in fact, might have been expected to show less illness because they were slightly older and more mature. It was found that, in fact, they had more psychiatric illness. Because this was found to correlate with the greater degree of stress experienced by this group, the data from this study further support the role of stress

over predisposition in the development of psychopathology after severe trauma. Together, these data support the view that psychiatric illness may develop after the POW experience in the absence of preexisting illness or identifiable predispositions. Most PTSD theories have underestimated the role of adult personality growth and resiliency and overestimated the role of preexisting personality in determining the outcome of the POW experience (Singer 1981; Wheatley and Ursano 1982).

Readjustment

Repatriation and Reintegration

Most former POWs readjust well over time. However, it should be remembered that repatriation and reintegration are not synonymous with "recovery" in the sense of resolution of psychiatric signs and symptoms. The repatriated POW emerges from what is likely to be a prolonged period of emotional blunting, monotony, apathy, withdrawal, and deprivation, into a rapidly paced series of medical evaluations, family reunions, and public relations activities. The brief period of euphoria upon release is quickly replaced by a period of overstimulation. There may be an attempt to make up for things denied during captivity by activities such as overeating. Initially, released POWs are frequently compliant with the requests of the military and their physicians. But over several days to weeks, they usually begin to take a more active and independent stance (Newman 1944; Rahe and Genender 1983). There is a tendency for the repatriated POW to minimize potential psychological and psychosocial problems caused by his or her captivity.

In addition, most repatriated POWs, including those from the Persian Gulf War, have had little experience dealing with the media. The media is a substantial stressor that can have lifelong effects on the repatriated POW if, for example, a statement that the individual, later, wishes he or she "had never said" is broadcast around the world. It is very important both to shield

the POW and his or her family from early intrusive media coverage and to offer training in the management of media requests. Based on lessons from the Vietnam War era and from hostage situations, such protection and training were routinely provided for those who might become POWs in the Persian Gulf War. Reminding POWs and their families that it is perfectly acceptable for them to say "No" can be a very important intervention.

After the tumultuous postrelease period, gradual readjustment and reintegration may continue throughout life. Reintegration occurs gradually, and the process is subject to reorganization with changing life circumstances.

Organizers in Adult Personality Development

Personality does not stop developing at the end of childhood or even adolescence (Colarusso and Nemiroff 1987). The fact that most neurophysiological and neuroanatomic development is finished before adulthood may provide some protection from radical departures in adult personality, but it is clear from animal studies that changes in neurophysiology and even neuroanatomy do occur during adulthood (Maclean 1986).

René Spitz (1965) discussed "organizers" of psychological development—that is, important experiences that structure feelings, thoughts, and behaviors of the present and thus influence future development and psychology. The oedipal phase and childhood traumatic events are two examples of such organizers. These organizing events are evident in psychotherapy when the therapist and patient identify organizing principles of past experience that are used to guide current behavior. It is useful to conceptualize adult traumas, such as being a POW, as a potential independent organizer of adult personality development (Ursano 1981). The trauma of POW experiences may induce psychopathology or personality growth or may resonate with themes already present from earlier organizing events or periods. Later, the symbolic recall of the POW events is the result of a current event activating this organizer. The recall

serves as a symbolic vehicle to express the current conflicts and anxieties.

Family Issues

The effect of imprisonment and release on family members and the family system itself can be profound and enduring or minor and transient. One study of POW wives indicated that during the period of captivity, psychological and psychophysiological symptoms were common (Hall and Simmons 1973). Psychological issues included desertion, ambiguity of role, repressed anger, sexuality, censure, and social isolation. Separation anxiety, role distortion, and sleep disorders were common in the children. Male children were significantly more affected than female children.

McCubbin et al. (1975) interviewed families of 215 Army, Navy, and Marine Corps POWs approximately 1 year before the POWs' release. The families' normal patterns of coping with husband/father absence had been disrupted by the unprecedented and indeterminate length of captivity. The social acceptance, stability, and sense of continuity that are taken for granted in the intact family were lacking or severely taxed in the POW family.

Parental preoccupation and overprotectiveness are potential reasons for the occasional presence of higher degrees of overt psychopathology in children of persons exposed to trauma than in the original victim (Hunter 1988; Menninger 1959). In a study of the offspring of psychiatrically hospitalized concentration camp survivors, 70% had psychopathology severe enough to require hospitalization between the ages of 17 and 22, and 90%, before the age of 25 (Menninger 1959). A clinical sample of midteenage children of concentration camp survivors had more behavioral disturbances and less adequate coping behavior than a clinical control group (Axelrod et al. 1980). A study comparing current effects of long-term father absence during and after the Vietnam War (missing in action) and temporary absence (POW) revealed significant differences in the

children. Both nervous symptoms and community relations were more impaired in the group of children whose fathers were missing in action (Dahl et al. 1977).

All of these studies suffer major methodological flaws but should serve as reminders of the potential impact of major life events as they are mediated through parents to children. Adolescents may be particularly sensitive to family tension. Their distress is often visible and can be disruptive for both the family and the community.

POW families who present for treatment are frequently in crisis. The resumption of precaptivity roles may be difficult for a mother who has successfully exercised both parental roles for several years, when the returned father has psychiatric symptoms and/or medical problems, and the children have become accustomed to having their mother to themselves. Adolescent males may be particularly vulnerable in such a setting. Treatment focuses on preserving family unity, enhancing the family system, and encouraging individual member development (McCubbin and Patterson 1982; McCubbin et al. 1982).

Conclusions

Prisoners of war suffer the most severe stressors of war. Repatriated POWs are a select group of survivors who have been able to adapt to captivity and maintain morale, hope, and health for months to years. The ability to communicate with other POWs during captivity is the most important coping strategy. The creative ways in which communication has been established and the content of what is communicated are the basis of many POW coping strategies.

Repatriation itself is a stressful event. The POW is faced with the outside world's view of his or her behavior and situation. He or she may face a changed world and certainly has much information to catch up on. Some events cannot be "caught up": the birth of a child, the death of a parent, a spouse who decided to seek a divorce, or the operational experience necessary to re-

main current in a profession. These are real losses to which the returning POW must accommodate. Most former POWs adjust well. For some, the experience serves as a personality-organizing focus that results in movement toward emotional growth and maturity; for others, no psychological change is evident; for still others, psychopathology develops. When psychiatric illness occurs following repatriation, the severity of the trauma and the status of social supports play a large role. Most psychopathology decreases with time, though recurrent, episodic, delayed, and chronic presentations of most of the reported posttraumatic psychiatric disorders are reported.

The stresses on the families of the POW are manifold, both during captivity and after repatriation. The family and the military community are critical elements in the recovery and readaptation of the POW.

Posttraumatic stress disorder, depression, and psychoactive substance use disorders are all seen in returned POWs. The coexistence of two or more of these is the rule. Determining which of the coexisting disorders is primary or secondary is usually less important than identifying and treating each. At repatriation, the Persian Gulf War POWs showed rates of psychiatric distress similar to those for Vietnam War–era POWs. The short duration of the Persian Gulf War and the relative health of fliers, who constituted the majority of POWs in that war, indicate that a good recovery could be expected.

References

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition. Washington, DC, American Psychiatric Association, 1980

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition, Revised. Washington, DC, American Psychiatric Association, 1987

Atkinson RM, Sparr LF, Sheff AG, et al: Diagnosis of posttraumatic stress disorder in Vietnam veterans: preliminary findings. Am J Psychiatry 141:694–696, 1984

Axelrod S, Schnipper OL, Rau JH: Hospitalized offspring of Holocaust survivors. Bull Menninger Clin 44:1–14, 1980

Beebe GW: Follow-up studies of World War II and Korean War prisoners, II: morbidity, disability, and maladjustments. Am J Epidemiol 101:400–422, 1975

Bettelheim B: Individuals and mass behavior in extreme situations, in Readings in Social Psychology. Edited by Maccoby EE, Newcomb TM, Hartley EL. New York, Henry Holt, 1958, pp 300–310

Biderman AD: Life and death in extreme captivity situations, in Psychological Stress: Issues in Research. Edited by Appley MH, Trumbull R. New York, Appleton-Century-Crofts, 1967, pp 242–277

Birkheimer LJ, Devane CL, Muniz CE: Posttraumatic stress disorder: characteristics and pharmacological response in the veteran population. Compr Psychiatry 26:304–310, 1985

Breslau N, Davis GC: Chronic stress and major depression. Arch Gen Psychiatry 43:309–314, 1986

Chodoff P: The German concentration camp as a psychological stress, in Human Adaptation: Coping With Life Crises. Edited by Moos RH. Lexington, MA, DC Heath, 1976, pp 337–349

Cohen BM, Cooper MZ: A Follow-Up Study of World War II Prisoners of War (Veterans Administration Medical Monograph). Washington, DC, U.S. Government Printing Office, 1954

Coker GT: Prisoners of war. U.S. Naval Institute Proceedings 100:41–48, 1974

Colarusso CA, Nemiroff RA: Clinical applications of adult developmental theory. Am J Psychiatry 144:1263–1270, 1987

Cornum R [as told to Copeland P]: She Went to War: The Rhonda Cornum Story. Novato, CA, Presidio Press, 1992

Dahl BB, McCubbin HI, Ross KL: Second generational effects of war-induced separations: comparing the adjustment of children in reunited and non-reunited families. Mil Med 141: 146–151, 1977

Deaton JE: Coping strategies of Vietnam POWs in solitary confinement. Unpublished master's thesis, San Diego State University, San Diego, CA, 1975

Dent OF, Richardson B, Wilson S, et al: Postwar mortality among Australian World War II prisoners of the Japanese. Med J Aust 150:378–382, 1989

Eberly RE, Harkness AR, Engdahl BE: An adaptational view of trauma response as illustrated by the prisoner of war experience. Journal of Traumatic Stress 4:363–380, 1991

Eitinger L: Pathology of the concentration camp syndrome: preliminary report. Arch Gen Psychiatry 5:371–379, 1961

Engdahl BE, Page WF, Miller TW: Age, education, maltreatment, and social support as predictors of chronic depression in former prisoners of war. Soc Psychiatry Psychiatr Epidemiol 26:63–67, 1991

Farber IK, Harlow HF: Brainwashing, conditioning, and DDD (debility, dependency, and dread). Sociometry 20:272–285, 1957

Ford CV, Spaulding RC: The Pueblo incident: a comparison of factors related to coping with extreme stress. Arch Gen Psychiatry 29:340–343, 1973

Green BL, Grace MC, Lindy JD, et al: Levels of functional impairment following a civilian disaster: the Beverly Hills Supper Club fire. J Consult Clin Psychol 51:573–580, 1983

Greenson RR: The psychology of apathy. Psychoanal Q 18:290–302, 1949

Hall RCW, Malone PT: Psychiatric effects of prolonged Asian captivity: a two-year follow-up. Am J Psychiatry 133:786–790, 1976

Hall RCW, Simmons WC: The POW wife: a psychiatric appraisal. Arch Gen Psychiatry 29:690–694, 1973

Helzer JE, Robins LN, Davis DH: Depressive disorders in Vietnam returnees. J Nerv Ment Dis 163:177–185, 1976

Horowitz MJ, Wilner N, Kaltreider N, et al: Signs and symptoms of posttraumatic stress disorder. Arch Gen Psychiatry 37:85–92, 1980

Hunter EJ: Isolation as a Feature of the POW Experience: A Comparison of Men With Prolonged and Limited Solitary Confinement. San Diego, CA, Center for Prisoner of War Studies, Naval Health Research Center, 1975

Hunter EJ: The prisoner of war: coping with the stress of isolation, in Human Adaptation: Coping With Life Crises. Edited by Moos RH. Lexington, MA, DC Heath, 1976, pp 322–331

Hunter EJ: The Vietnam POW veteran: immediate and long-term effects of captivity, in Stress Disorders Among Vietnam Veterans. Edited by Figley CR. New York, Brunner/Mazel, 1978, pp 188–206

Hunter EJ: The psychological effects of being a prisoner of war: Vietnam veterans and their families, in Human Adaptation to Extreme Stress: From the Holocaust to Vietnam. Edited by Wilson J, Harel Z, Kahana B. New York, Plenum, 1987, pp 100–116

Hunter EJ: Long-term effects of parental wartime captivity on children: children of POW and MIA servicemen. Journal of Contemporary Psychology 18:312–328, 1988

Hunter EJ, Phelan JD, Mowery EC: Resistance posture and the Vietnam prisoner of war. Journal of Political and Military Sociology 4:295–308, 1976

Jones DR: What the POWs write about themselves. Aviat Space Environ Med 51:615–617, 1980

Klonoff H, Clark C, Horgan J, et al: The MMPI profile of prisoners of war. J Clin Psychol 32:623–627, 1976a

Klonoff H, McDougall G, Clark C, et al: The neuropsychological, psychiatric, and physical effects of prolonged and severe stress: 30 years later. J Nerv Ment Dis 163:246–253, 1976b

Kluznik JC, Speed N, VanValkenburg C, et al: Forty-year follow-up of United States prisoners of war. Am J Psychiatry 143: 1443–1446, 1986

Laufer RS, Brett E, Gallops MS: Symptom patterns associated with posttraumatic stress disorder among Vietnam veterans exposed to war trauma. Am J Psychiatry 142:1304–1311, 1985

Maclean PD: Culminating developments in the evolution of the limbic system, in The Limbic System: Functional Organization and Clinical Disorders. Edited by Doane BK, Livingston KE. New York, Raven, 1986, pp 1–28

McCubbin HI, Patterson JM: Family adaptation to crises, in Family Stress, Coping, and Social Support. Edited by McCubbin HI, Cauble AE, Patterson JM. Springfield, IL, Charles C Thomas, 1982, pp 26–47

McCubbin HI, Hunter EJ, Dahl BB: Residuals of war: families of prisoners of war and servicemen missing in action. Journal of Social Issues 31:95–109, 1975

McCubbin HI, Cauble AE, Patterson JM (eds): Family Stress, Coping, and Social Support. Springfield, IL, Charles C Thomas, 1982

Menninger K: The academic lecture: hope. Am J Psychiatry 94:481–491, 1959

Nardini JE: Survival factors in American prisoners of war of the Japanese. Am J Psychiatry 92:241–248, 1952

Nefzger MD: Follow-up studies of World War II and Korean War prisoners. Am J Epidemiol 91:123–138, 1959

Newman FH: The prisoner of war mentality: its effect after repatriation. BMJ 1:8–10, 1944

Page WF: The Health of Former Prisoners of War. Washington, DC, National Academy Press, 1992

Page WF, Engdahl BE, Eberly RE: Prevalence and correlates of depressive symptoms among former prisoners of war. J Nerv Ment Dis 179:670–677, 1991

Paykel E: Contribution of life events to causation of psychiatric illness. Psychol Med 8:245–254, 1978

Query WT, Megran J, McDonald G: Applying posttraumatic stress disorder MMPI subscale to World War II POW veterans. J Clin Psychol 42:315–317, 1986

Rahe RH, Genender E: Adaptation to and recovery from captivity stress. Mil Med 148:577–585, 1983

Richlin M: Positive and negative residuals of prolonged stress, in Prolonged Separation: The Prisoner of War and His Family. Edited by Hunter EJ. San Diego, CA, Center for Prisoner of War Studies, Naval Health Research Center, 1977

Rundell JR, Ursano RJ, Holloway HC, et al: Psychiatric responses to trauma. Hosp Community Psychiatry 40:68–74, 1989

Schein EH: The Chinese indoctrination program for prisoners of war: a study of attempted "brainwashing." Psychiatry 19:149–172, 1956

Schein EH, Hill WF, Williams HL, et al: Distinguishing characteristics of collaborators and resisters among American prisoners of war. Journal of Abnormal and Social Psychology 55:197–201, 1957

Segal J: Factors related to the collaboration and resistance behavior of U.S. Army POWs in Korea (Department of the Army Technical Report 33). Washington, DC, U.S. Department of the Army, 1956

Sierles FS, Chen JJ, McFarland RE, et al: Posttraumatic stress disorder and concurrent psychiatric illness: a preliminary report. Am J Psychiatry 140:1177–1179, 1983

Singer MT: The Consequences of War Imprisonment Symposium, in Proceedings of the Twenty-Sixth Annual Conference of Air Force Behavioral Scientists. Edited by Levy RA. Brooks Air Force Base, TX, USAF School of Aerospace Medical Division (AFSC), 1979, pp 66–76

Singer MT: Vietnam prisoners of war, stress, and personality resiliency. Am J Psychiatry 138:345–346, 1981

Singer MT, Schein E: Projective test responses of prisoners of war following repatriation. Psychiatry 21:375–385, 1958

Sledge WH, Boydstun JA, Rabe AJ: Self-concept changes related to war captivity. Arch Gen Psychiatry 37:430–443, 1980

Spaulding RC, Ford CV: The Pueblo incident: psychological reactions to the stresses of imprisonment and repatriation. Am J Psychiatry 129:17–26, 1972

Speed N, Engdahl BE, Schwartz J, et al: Posttraumatic stress disorder as a consequence of the prisoner of war experience. J Nerv Ment Dis 177:147–153, 1989

Spitz R: The First Year of Life: Normal and Deviant Object Relations. New York, International Universities Press, 1965

Strassman AD, Thaler MB, Schein EH: A prisoner of war syndrome: apathy as a reaction to severe stress. Am J Psychiatry 112:998–1003, 1956

Sutker PB, Allain AN: MMPI profiles of veterans of World War II and Korea: comparisons of former POWs and combat survivors. Psychol Rep 68(1):279–284, 1991

Sutker PB, Winstead DK, Galina ZH, et al: Assessment of long-term psychosocial sequelae among POW survivors of the Korean conflict. J Pers Assess 54:170–180, 1990

Sutker PB, Winstead DK, Galina ZH, et al: Cognitive deficits and psychopathology among former prisoners of war and combat veterans of the Korean conflict. Am J Psychiatry 148:67–72, 1991

Ursano RJ: An analysis of precaptivity data, in Proceedings of the Twenty-Sixth Annual Conference of Air Force Behavioral Scientists. Edited by Levy RA. Brooks Air Force Base, TX, USAF School of Aerospace Medical Division (AFSC), 1979, pp 54–65

Ursano RJ: The Vietnam War era prisoner of war: precaptivity personality and the development of psychiatric illness. Am J Psychiatry 138:315–318, 1981

Ursano RJ: Vietnam era prisoners of war: studies of U.S. Air Force prisoners of war, in The Trauma of War: Stress and Recovery in Viet Nam Veterans. Edited by Sonnenberg SM, Blank AS Jr, Talbott JA. Washington, DC, American Psychiatric Press, 1985, pp 339–357

Ursano RJ, Rundell JR: The prisoner of war. Mil Med 155:176–180, 1990

Ursano RJ, Boydstun JA, Wheatley RD: Psychiatric illness in U.S. Air Force Vietnam prisoners of war: a five-year follow-up. Am J Psychiatry 138:310–314, 1981

Ursano RJ, Wheatley RD, Sledge WH, et al: Coping and recovery styles in the Vietnam era prisoner of war. J Nerv Ment Dis 174:707–714, 1986

Ursano RJ, Wheatley RD, Carlson EH, et al: The prisoner of war: stress, illness, and resiliency. Psychiatric Annals 17:532–535, 1987

van der Kolk BA: Psychopharmacological issues in posttraumatic stress disorder. Hosp Community Psychiatry 34:683–692, 1983

van der Kolk BA: Post-Traumatic Stress Disorder: Psychological and Biological Sequelae. Washington, DC, American Psychiatric Press, 1984

Van Putten T, Yager J: Posttraumatic stress disorder: emerging from the rhetoric. Arch Gen Psychiatry 41:411–413, 1984

Weisaeth L: Full documentation of appalling suffering of Canadian ex-POWs. WVF International Socio-Medical Information Center Newsletter 1(1):1–10, 1989

Wheatley RD: Intellectual, neuropsychological, and visuomotor assessments of repatriated Air Force SEA POWs, in Scientific Proceedings of the Aerospace Medical Association Annual Meeting, San Antonio, TX, May 1981

Wheatley RD, Ursano RJ: Serial personality evaluations of repatriated U.S. Air Force Southeast Asia POWs. Clinical Medicine 53:251–257, 1982

White NS: Posttraumatic stress disorder (letter). Hosp Community Psychiatry 34:1061–1062, 1983

Yager T, Laufer R, Gallops M: Some problems associated with war experience in men of the Vietnam generation. Arch Gen Psychiatry 41:327–333, 1984